

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
18 July 2002 (18.07.2002)

PCT

(10) International Publication Number
WO 02/055343 A1

(51) International Patent Classification⁷: **B60R 19/18**,
19/20, 19/38, 19/40, 21/00, B60T 7/12, B61G 11/00,
G01S 13/00

(21) International Application Number: PCT/US02/01033

(22) International Filing Date: 10 January 2002 (10.01.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/261,056 11 January 2001 (11.01.2001) US

(71) Applicant (for all designated States except US): **UNIVERSAL PROPULSION COMPANY, INC.** [US/US]; 25401
North Central Avenue, Phoenix, AZ 85027 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **CURRY, Paul, G.**

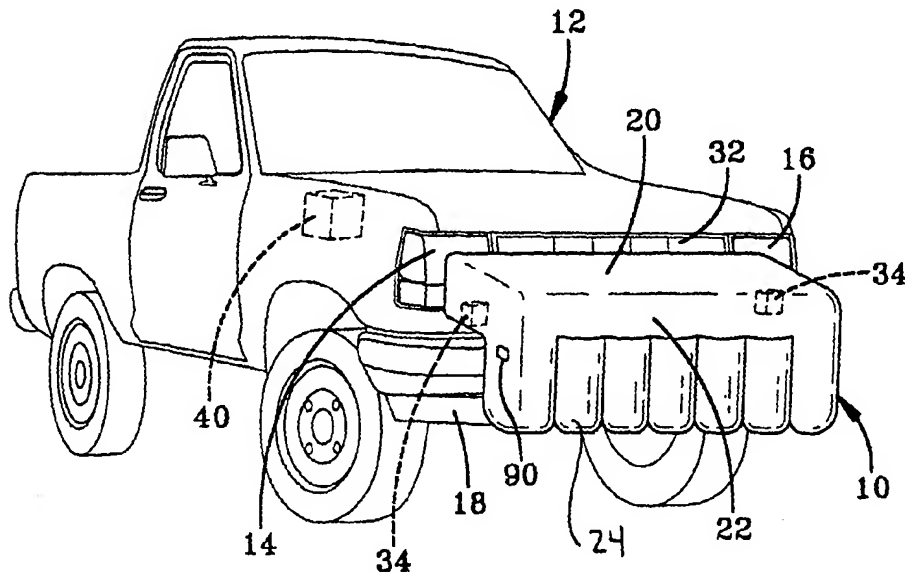
[US/US]; 2402 East North Lane, Phoenix, AZ 85028 (US). **PACK, Wesley** [US/US]; 16533 East Campbell Road, Gilbert, AZ 85234 (US). **HAILSTONE, Steve** [US/US]; 801 West Detroit Street, Chandler, AZ 85225 (US). **BAKER, Jefferey, A.** [US/US]; 2128 West Windsor Avenue, Phoenix, AZ 85009 (US). **MCCLLENATHAN, Robert, V.** [US/US]; 6431 E. Paradise Lane, Scottsdale, AZ 85254 (US). **VECCHIO, Michael, T.** [US/US]; 15938 Blue Skies Drive, Livonia, MN 48154 (US).

(74) Agent: **TITUS, John, D.**; Gallagher & Kennedy, P.A.,
2575 East Camelback Road, Phoenix, AZ 85016 (US).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.

[Continued on next page]

(54) Title: BUMPER AIRBAG AND SYSTEM



(57) Abstract: An airbag (10) for mounting in the bumper (18) of a motor vehicle (12) is provided. The airbag can have an up-side-down "I." shape or a cylindrical shape. Further, multiple bags can be combined within one system. The airbag is configured to cover substantially the width of the vehicle upon deployment and also provide protection to the occupant of a struck vehicle (36) in the event the occupant is partially expelled from the struck vehicle in the direction of the bag. The airbag is combined with an inflation (23), collision sensor (34) and an electronic control unit (38) to form the airbag system.

BEST AVAILABLE COPY

WO 02/055343 A1